Guidelines for OVHA Coverage

ITEM: NEUROMUSCULAR STIMULATOR

DEFINITION: Neuromuscular stimulators are used to provide active exercise and/or sensory feedback to muscles that an individual is unable to contract voluntarily, can only contract weakly, or can only contract together with other muscles that are unnecessary or improperly recruited for the desired motor activity. Neuromuscular stimulation promotes blood flow to the tissue, decreases fibrotic changes in the muscle, can improve mobility, prevent or reverse disuse atrophy, provide proprioceptive feedback, and strengthen muscle tissue.

GUIDELINES:
Nonimplantable neuromuscular stimulation devices are appropriate for beneficiaries who:

- Have a medical condition that results in weakness or disuse atrophy of particular motor groups needed for functional activity which are accessible from the body's exterior AND
- Have undergone a comprehensive evaluation to determine the etiology of the weakness and the prognosis for recovery of strength AND
- Where neuromuscular stimulation is part of a comprehensive program of treatment including therapeutic exercise, education, and functional training carried out by a physical or occupational therapist.
- Nonimplantable neuromuscular stimulation includes the use of EMG biofeedback for the re-education of specific muscles, to isolate those muscles in order to improve the function of the muscles. There is no coverage at this time for biofeedback for psychogenic or psychological disorders due to the lack of current, peer reviewed medical literature to support its use in this area.

A form fitting garment for delivery of NMES is appropriate for beneficiaries who:

- Meet all the criteria for NMES as listed above AND
- Have a medical condition where the need for NMES stimulation covers more area than is suitable for coverage with electrodes, or is in a site not reachable by an electrode.

Implantable neuromuscular stimulation devices are appropriate for beneficiaries who:

- Have a medical condition that results in weakness or disuse atrophy of particular motor groups needed for functional activity AND
- Have undergone a comprehensive evaluation to determine the etiology of the weakness/disuse atrophy and the prognosis for recovery of strength AND
- Where there is documented evidence that the implantable device is the least expensive, most appropriate treatment for the condition AND
- Where neuromuscular stimulation is part of a comprehensive program of treatment including therapeutic exercise, education, and functional training carried out by a physician and/or physical or occupational therapist.

APPLICABLE CODES:
E0731 For fitting conductive garment for delivery of TENS or NMES (with conductive fibers separated from the patient's skin by layers of fabric).

E0740 Incontinence treatment system, pelvic floor stimulator, monitor, sensor and/or trainer.
E0744 Neuromuscular stimulator for scoliosis
E0745 Neuromuscular stimulator, electronic shock unit.
E0746 Electromyography (EMG), biofeedback device.
E0752 Implantable neurostimulator electrode, each.
E0754 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
E0755 Electronic salivary reflex stimulator
E0756 Implantable neurostimulator pulse generator
E0757 Implantable neurostimulator radiofrequency receiver
E0758 Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
E0759 Radiofrequency transmitter (external) for usewith implantable sacral root stimulator receiver for bowel and bladder management, replacement

CAUTIONS:
Contraindications:

- When active motion is contraindicated (for example, unfixated fracture or a fusion)
- Individuals with cardiac pacemakers
- Stimulation directly over metal implants
- Active bleeding in the treatment area
- Malignancies in the treatment area

Precautions:

- Care should be taken over anesthetic skin, areas with open wounds, and areas of extreme edema.

There is always risk of infection with implantable devices.

EXAMPLES OF DIAGNOSES: Peripheral nerve injuries, tendon transplants, upper motor neuron lesions such as stroke, disuse atrophy, casted or splinted limbs, where immobility has led to contracture and disuse atrophy, urge, stress, and mixed incontinence, incomplete spinal cord injury, contracture due to burns, salivary disorders.

REQUIRED DOCUMENTATION:

- Current, complete Certificate of Medical Necessity and supporting documentation demonstrating that this beneficiary:

(Nonimplantable neuromuscular stimulation device)

- Has a medical condition that results in weakness or disuse atrophy of particular motor groups needed for functional activity which are accessible from the body's exterior AND
- Has undergone a comprehensive evaluation to determine the etiology of the weakness and the prognosis for recovery of strength AND
- Demonstrating that the neuromuscular stimulation is part of a comprehensive program of treatment including therapeutic exercise, education, and functional training carried out by a physical or occupational therapist. There must have been a trial of the device to determine its efficacy under the supervision of a physical or occupational therapist.

- (Nonimplantable neuromuscular stimulation includes the use of EMG biofeedback for the re-education of specific muscles, to isolate those muscles in order to improve the function of the muscles. There is no coverage at this time for biofeedback for psychogenic or psychological disorders due to the lack of current, peer reviewed medical literature to support its use in this area.)

(Form fitting garment for delivery of NMES):

- Meets all the criteria for NMES as listed above AND
- Has a medical condition where the need for NMES stimulation covers more area than is suitable for coverage with electrodes, or is in a site not reachable by an electrode.

(Implantable neuromuscular stimulation devices):

- Has a medical condition that results in weakness or disuse atrophy of particular motor groups needed for functional activity AND
- Has undergone a comprehensive evaluation to determine the etiology of the weakness/disuse atrophy and the prognosis for recovery of strength AND
- Where there is documented evidence that the implantable device is the least expensive, most appropriate treatment for the condition AND
- Where neuromuscular stimulation is part of a comprehensive program of treatment including therapeutic exercise, education, and functional training carried out by a physician and/or physical or occupational therapist.

REFERENCES:

Preferred DME Supplier Manual, June 2001.www.bcbs.com.

National Coverage Determination Relevant to Therapy Services. 35-77 Neuromuscular Electrical Stimulation in the Treatment of Disuse Atrophy. www.cms.hhs.gov.

Complete Guide to Medicare Coverage Issues, St. Anthony Publ. Nov. 2001, Ingenix Inc., Reston, VA.

Hayes, Karen, Manual For Physical Agents. 1993, Appleton and Lange, Norwalk, CT.

Crary MA et al. Functional benefits of dysphagia therapy using adjunctive sEMG biofeedback. Dysphagia 2004 Summer;9(3):160-4.

DiBenedetto P. Female Urinary incontinence rehabilitation. Minerva Ginecol. 2004 Aug;56(4):353-69.

Osturk R et al. Longterm outcome and objective changes of anorectal function after biofeedback therapy for foecal incontinence. Aliment Pharmacol Ther. 2004 Sept 15;20(6):667-74.

Davis KJ et al. Adjuvant biofeedback following anal sphincter repair: a randomized study. Aliment Pharmacol Ther. 2004 Sept 1;20(5):539-49.

Rupp R et al. Neuroprosthetics of the upper extremity: clinical application in spinal cord injury and future perspectives. Biomed Tech 2004 Apr;49(4):93-8.

Wilder RP et al. Functional electrical stimulation fo dropped foot. J Long-term Eff Med Implants. 2002;12(3**):**149-59.

Popovic MB. Control of neural prosthesis for grasping and reaching. Med Eng Phys 2003 Jan;25(1**)** 41-50.

Nicolaidis SC. Muscle pressure using an implantable electrical system after nerve injury and repair. Microsurgery 2001; 21(6**):**241-7/

Creasey GH et al. An implantable neurprosthesis for restoring bladder and bowel control to patients with spinal cord injury: a multicenter trial. Arch Phys Med Rehabil. 2001 Nov;82(11):1512-9.

Wright J et al. Morphological and histochemical characteristics of skeletal muscle after long term intramuscular electrical stimulation. Spine 1992 Jul 17(7):767-70.

Bogie KM et al. Electrical stimulation for pressure sore prevention and wound healing. Assist Technol 2000;12(1):50-66.

Medical Director's signature:_____

Medicaid Director's signature:_____

Date:
Revision 1:
Revision 2:
Revision 3: